

wherein the plasma exposure is carried out for about 0.1 to 1000 seconds and under the pressure of about 0.5 mTorr ~ 100Torr.

P₁

2. (Amended) A method of crystallizing amorphous silicon, comprising:
providing a substrate on which an amorphous silicon layer is formed;
depositing an inducing substance for silicon crystallization on an exposed surface of an amorphous silicon layer by plasma exposure; and
annealing the amorphous silicon layer,
wherein the plasma exposure is carried out for about 0.1 to 1000 seconds and under the pressure of about 0.5 mTorr ~ 100Torr.

D₂

16. (Amended) A method of crystallizing amorphous silicon, comprising:
depositing an inducing substance for silicon crystallization on an amorphous silicon layer by plasma exposure while annealing is carried out on the amorphous silicon layer,
wherein the plasma exposure is carried out for about 0.1 to 1000 seconds and under the pressure of about 0.5 mTorr ~ 100Torr.

D₃

22. (Amended) A crystallizing apparatus, comprising:
a chamber having inner space;
a substrate support arranged in the chamber, the substrate support being used for supporting a substrate having an amorphous silicon layer formed thereon;
a plasma generating device having a metal source connected to a power supply, the plasma generating device producing plasma inside the chamber by supplying the metal bar with

RF or DC power from the power supply to deposit a crystallization catalyst on an exposed surface of the amorphous silicon layer;

03 a heater arranged at the substrate support, the heater supplying the substrate with heat for performing crystallization while the plasma generating device produces plasma inside the chamber,

wherein the plasma exposure is carried out for about 0.1 to 1000 seconds and under the pressure of about 0.5 mTorr ~ 100Torr.
